Appl. No. 10/017,639

Amdt. dated January 24, 2005

Reply to Office action of November 16, 2004

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-3 remain in the application. Claims 1-3 have been amended.

In "Claim Rejections - 35 USC § 102", item 3 on pages 2-5 of the above-identified Office Action, claims 1-3 have been rejected as being fully anticipated by U.S. Patent No. 5,533,123 to Force et al. (hereinafter Force) under 35 U.S.C. § 102(b).

The rejection has been noted and claim 1 has been amended in an effort to even more clearly define the invention of the instant application. Claims 2 and 3 have been amended to be consistent with the changes in claim 1.

More specifically, the last feature of claim 1 has been amended to call for at least one of successively switching the sensors into a higher sensitization state, or successively activating more sensitive sensors, after the abnormal operating state has been sensed.

Support for the change is found in original claims 2 and 3 and the paragraph bridging pages 4 and 5 of the specification of

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the instant application, which states that "The method according to the invention uses a sensor hierarchy with which it is possible to react indirectly to abnormal operating states. The sensors used are successively switched into a higher sensitization state and/or successively more sensitive sensors are activated".

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia, a method for detecting an attempt at manipulatory intervention in a smart card, which comprises the steps of:

using various sensors for detecting abnormal operating states;

sensing an occurrence of an abnormal operating state by some of the sensors; and

after the abnormal operating state has been sensed, at least one of:

successively switching the sensors into a higher sensitization state, or

successively activating more sensitive sensors.

The Force reference discloses an SPU chip in which keys, encryption/decryption engines and algorithms are integrated to provide a portable security process. Detectors of a security attack, filters correlating data from the detectors and countermeasures are used to deal with the attacks. The

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process is to be used, for example in an ATM card. The system is constructed to provide protection from electrical and physical attack through the use of hardware and software. A flexible response strategy is used against attack on the silicon and the pins of the card.

A number of passages of the Force reference were cited in the Office action to show a wide variety of different measures to integrate a security system into the chip. An advantage of an application of many different detectors is that different kinds of attack can be detected so that appropriate countermeasures can be taken. The detectors can have very different sensitivities and detectors of the same kind having different sensitivities can be integrated into the same chip.

However, a distinguishing feature of the invention of the instant application as claimed is that it provides a method for detecting an attempt at manipulatory intervention in a smart card, which successively switches the sensors into a higher sensitization state, or successively activates more sensitive sensors only after an abnormal operating state has been detected.

Accordingly, claim 1, for example, calls for switching the sensors into a higher sensitization state or successively

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activating more sensitive sensors after an abnormal operating state has been detected. Claim 2 calls for providing the sensors with different degrees of sensitivity. Claim 3 calls for providing the sensors with sensitivities which can be set at different degrees.

The Force reference does not disclose a clear indication of the more sophisticated concept of how to apply the sensing measures which are provided. Instead, Force is primarily concerned with the description of a variety of measures and possibilities to deal with different kinds of attack or to thwart efforts to read out secret information by a joint operation of different devices working with their original sensitivities.

Accordingly, in order to make it absolutely clear that the language of the claims of the instant application overcomes the prior art, claim 1 has been amended to call for a stepped system, which activates sensors of a relatively high level of sensitivity, after the standard sensors have sensed an abnormal operating state of the chip. The activation of more sensitive sensors or the switching of the sensors into a higher sensitization state enables an improved detection of the conditions to which the chip is exposed. This is of a different quality than the mere addition of different sensor

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signals according to the Force reference.

Therefore, claim 1 has been amended, as stated on page 4 of the specification of the instant application, by calling for, after the abnormal operating state has been sensed, at least one of successively switching the sensors into a higher sensitization state, or successively activating more sensitive sensors.

This claim language is believed to more clearly distinguish the claimed method over the cited prior art reference. The other cited references, which are considered pertinent to the disclosure, are only technological background.

Clearly, Force does not show at least one of successively switching the sensors into a higher sensitization state, or successively activating more sensitive sensors, after the abnormal operating state has been sensed, as recited in claim 1 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art. The

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dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

In view of the foregoing, reconsideration and allowance of claims 1-3 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099. Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully

y submitt

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For Applicant

LAG!tk

January 24, 2005

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